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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/597,774

08/07/2006

Takeo Fukumoto

062659

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7590

04/14/2008

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EXAMINER

BARCA, MICHAEL S

ART UNIT

PAPER NUMBER

3751

MAIL DATE

DELIVERY MODE

04/14/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/597,774	Applicant(s) FUKUMOTO ET AL.	
	Examiner MICHAEL BARCA	Art Unit 3751	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 August 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>8/7/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by US Patent 6,334,728 to Suzuki.

In Reference to Claim 1

Suzuki discloses a lead holding structure (4,5) of a mechanical pencil in which a lead is held through a fastener (5, Fig. 6) by a chuck (4) which is disposed in front of a shaft cylinder (2) where the lead is protracted and retracted from the pencil. Suzuki also discloses that a portion of an outer periphery of the chuck (outer periphery of chuck head 41, Fig. 6) corresponds to a lead holding structure (4,5) and from a substantially central point (the corner of chuck head 41 formed at the intersection of the inclined portion and the straight portion that contacts fastener 5, Fig. 6) the outer periphery extends substantially parallel to an axis (the longitudinal axis of the pencil coincident with the lead) to the front of the chuck head. Suzuki further discloses that from this central point rearwardly (opposite the end of the pencil which is used for writing), the outer periphery of the chuck is inclined toward the longitudinal axis of the pencil and that an inner peripheral surface of the fastener is also inclined rearwardly towards the longitudinal axis of the lead (Fig. 6). Lastly, Suzuki discloses that the chuck holds the

lead and is fastened by the fastener and that the central point on the outer periphery of the chuck head is a contact point with respect to the inclined inner surface of the fastener. Since this is a contact point, this must also necessarily constitute a "load application point" as claimed where this point occurs substantially at a center of the length of the lead (Fig. 6).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 6,334,728 to Suzuki.

In Reference to Claim 2

Suzuki discloses the claimed invention except for stating a specific range of the inner diameter of the chuck. It would have been obvious to one having ordinary skill in the art at the time the invention was made to specify the inner diameter of the chuck to be between 90% and 100% of the diameter of the lead since in any mechanical pencil this dimension must be of a size suitable to hold the lead (if too large the lead will pass through without being held, and if too small the lead will not fit in it) since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 6,334,728 to Suzuki in view of US Patent 6,783,292 to Arai et al.

In Reference to Claim 3

Suzuki discloses the lead holding structure of claim 1 but does not show that the inner surface of the lead holding structure of the chuck is formed with projections of 10 microns or less. Arai teaches the use of projections (71) on the inner surface of the chuck (Col. 3, lines 62-65) in his mechanical pencil in order to help grip the lead.

It would have been obvious to one of ordinary skill in the art at the time the invention was made put these projections on the inner surface of the chuck of Suzuki in order to help grip the lead better. Note that Arai does not disclose the use of projections of 10 microns or less, however, this is merely finding an optimum range and involves only routine skill in the art (see rejection to claim 2 above).

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Fukumoto, Gu, Sakoaka, Kageyama, Smit, and Hashimoto are included because they are generally representative of applicant's disclosure.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Barca whose telephone number is (571)270-5055. The examiner can normally be reached on Monday-Friday 7:30 AM to 5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Greg Huson can be reached on 571-272-4887. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

8. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/M. B./
Examiner, Art Unit 3751

/David J. Walczak/
Primary Examiner, Art Unit 3751